

C² elimination of ring-strain during the hydrosilation process is also a driver of such polymerizations.

IN THE CLAIMS

Please amend the claims as follows:

1 ~~§ 22.~~ (Twice amended) A method of making and curing a POS- or POSS-based
2 composition, comprising the steps of:

3 (a) contacting a base composition selected from the group consisting of POSS and
4 POS with effective amounts of a strained ring olefin in a solution in the presence of effective
5 amounts of a catalyst which promotes addition of the ring-strained olefin to the base composition
6 through an olefinic carbon-carbon double bond of the strained ring olefin, thereby creating a
7 POS- or POSS-based composition with ring-strained olefinic functionality; and

C³ 8 (b) curing the POS- or POSS-based composition with ring-strained olefinic
9 functionality by reacting it with effective amounts of a mixture of (a) at least one metal-based
10 catalyst selected from the group consisting of carbenes, halides, phosphates, acetates, and salts of
11 molybdenum, tungsten, and ruthenium and (b) at least one cocatalyst selected from the group
12 consisting of organoaluminum halides and aluminum halides.

C⁴ 1 | 25. (Twice amended) A method of making and curing a POS- or POSS-based
2 composition, comprising the steps of:

3 (a) contacting a base composition selected from the group consisting of POSS and
4 POS with effective amounts of a strained ring olefin in a solution in the presence of effective
5 amounts of a catalyst which promotes addition of the ring-strained olefin to the base composition
6 through an olefinic carbon-carbon double bond of the strained ring olefin, thereby creating a
7 POS- or POSS-based composition with ring-strained olefinic functionality; and

8 (b) curing the POS- or POSS-based composition with ring-strained olefinic
9 functionality by reacting it with effective amounts of at least one difunctional or polyfunctional
10 silane in the presence of effective amounts of a catalyst selected from the group consisting of
11 palladium halides, platinum halides, palladium-olefin complexes, platinum-olefin complexes,
12 carbon-supported palladium halides, carbon-supported platinum halides, carbon-supported
13 palladium-olefin complexes, and carbon-supported platinum-olefin complexes.

C4
1 ²
26. (Twice amended) A method of making and curing a POS- or POSS-based
2 composition, comprising the steps of:

3 (a) contacting a base composition selected from the group consisting of POSS and
4 POS with effective amounts of a strained ring olefin in a solution in the presence of effective
5 amounts of a catalyst which promotes addition of the ring-strained olefin to the base composition
6 through an olefinic carbon-carbon double bond of the strained ring olefin, thereby creating a
7 POS- or POSS-based composition with ring-strained olefinic functionality; and

Cy 8 (b) curing the POS- or POSS-based composition with ring-strained olefinic
9 functionality by reacting it with effective amounts of a vulcanizing agent selected from the group
10 consisting of organoperoxides, persulfides, and sulfur.
